

NORTHERN GREAT PLAINS

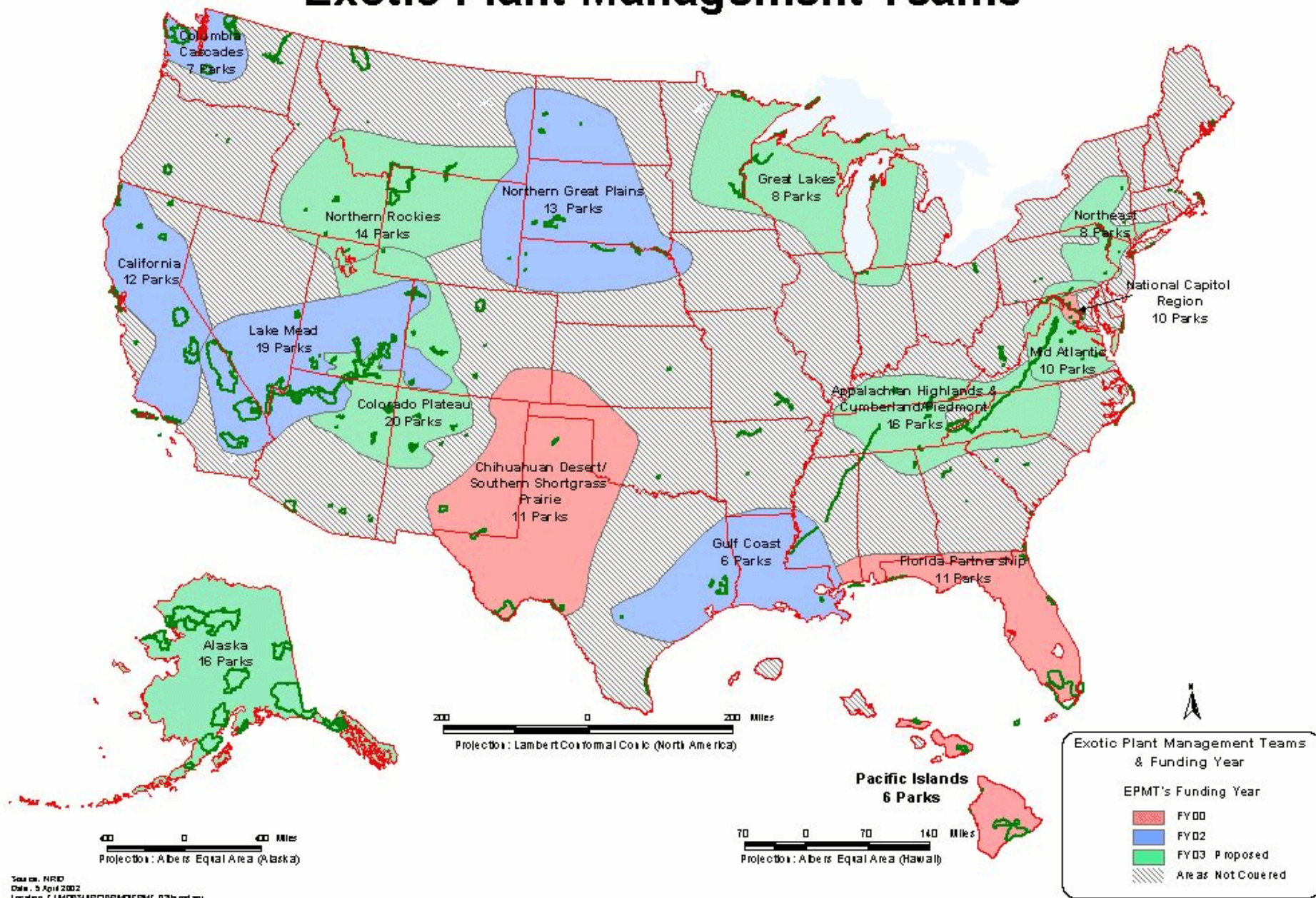


EXOTIC PLANT
MANAGEMENT
TEAM

OUTLINE

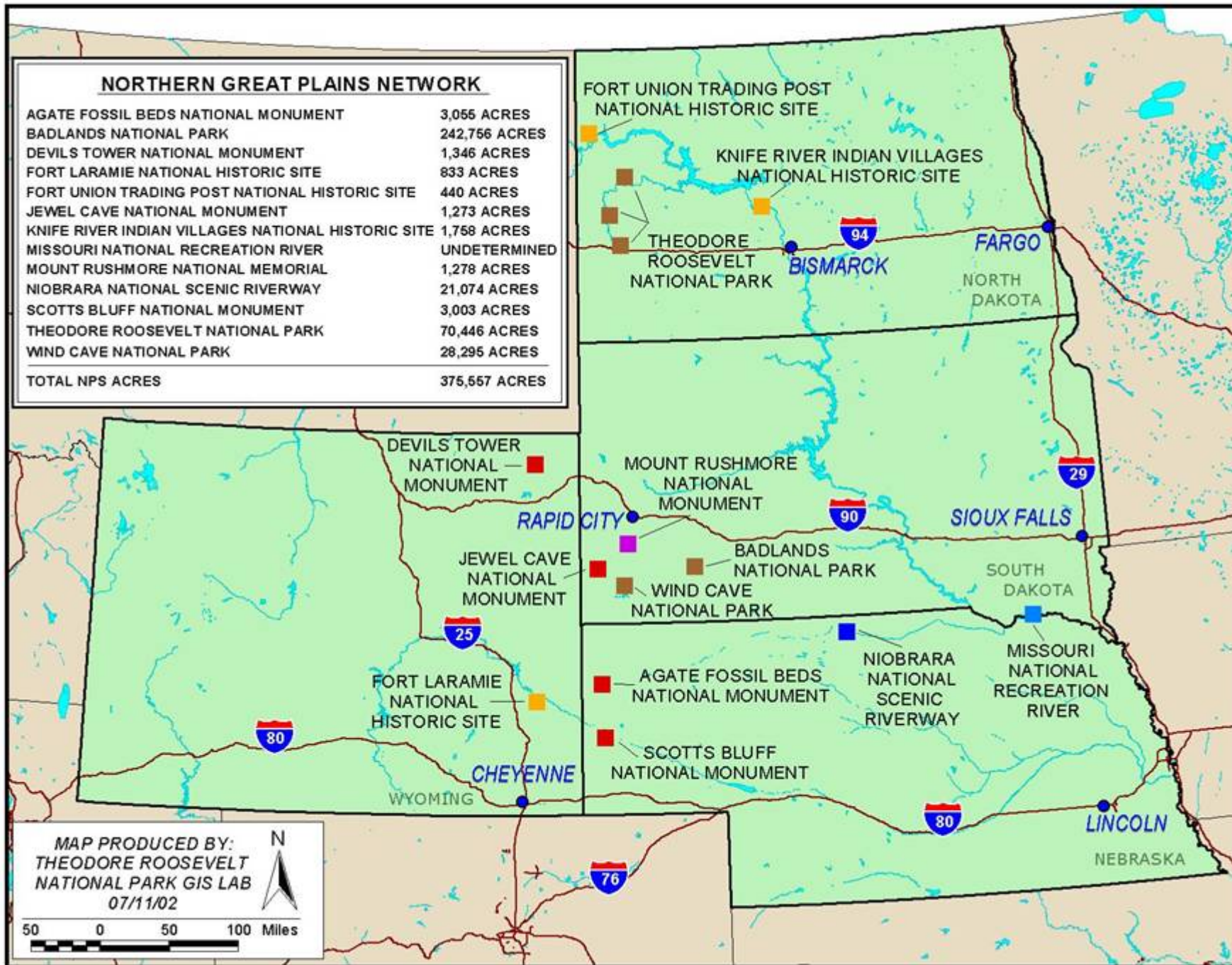
- EPMT nationwide/NGP team
- Annual Report/Data
- Liaison Position
- Equipment
- Photos
- Costs
- Biological control activities
- Upcoming field season/training

National Park Service Exotic Plant Management Teams



NORTHERN GREAT PLAINS NETWORK

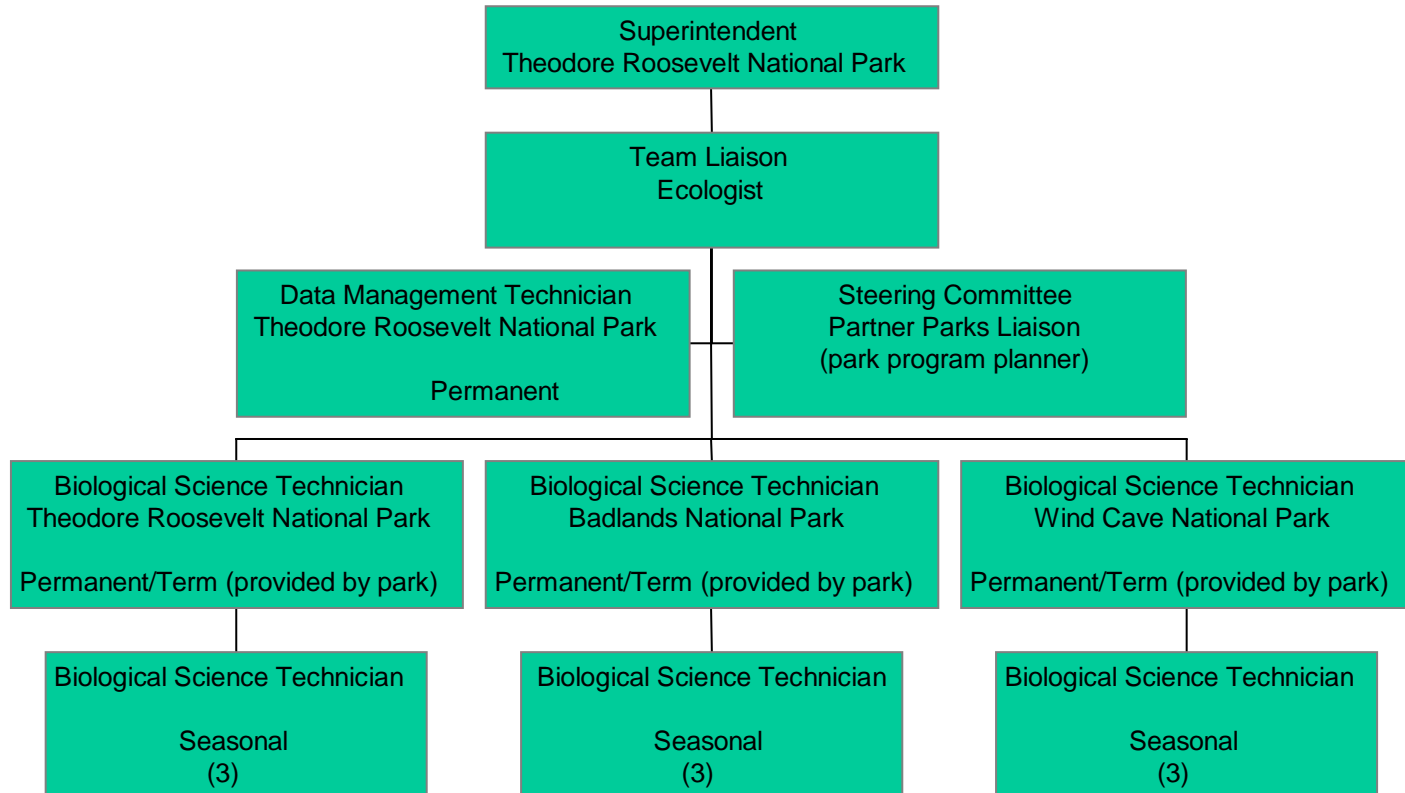
AGATE FOSSIL BEDS NATIONAL MONUMENT	3,055 ACRES
BADLANDS NATIONAL PARK	242,756 ACRES
DEVILS TOWER NATIONAL MONUMENT	1,346 ACRES
FORT LARAMIE NATIONAL HISTORIC SITE	833 ACRES
FORT UNION TRADING POST NATIONAL HISTORIC SITE	440 ACRES
JEWEL CAVE NATIONAL MONUMENT	1,273 ACRES
KNIFE RIVER INDIAN VILLAGES NATIONAL HISTORIC SITE	1,758 ACRES
MISSOURI NATIONAL RECREATION RIVER	UNDETERMINED
MOUNT RUSHMORE NATIONAL MEMORIAL	1,278 ACRES
NIOBARRA NATIONAL SCENIC RIVERWAY	21,074 ACRES
SCOTT'S BLUFF NATIONAL MONUMENT	3,003 ACRES
THEODORE ROOSEVELT NATIONAL PARK	70,446 ACRES
WIND CAVE NATIONAL PARK	28,295 ACRES
TOTAL NPS ACRES	375,557 ACRES



MAP PRODUCED BY:
THEODORE ROOSEVELT
NATIONAL PARK GIS LAB
07/11/02

Great Plains Cluster

Exotic Plant Management Team



**Summary of acres treated, mapped, monitored, area covered
and release of biological control agents for FY-2002**

<u>PARK</u>	<u>TREATED ACRES</u>	<u>Retreated ACRES</u>	<u>INVENTORIED (MAPPED) ACRES</u>	<u>MONITORED ACRES</u>	<u>AREA COVERED ACRES</u>	<u>BIOCONTROL AGENTS RELEASED</u>	<u>TARGET SPECIES FOR BIOLOGICAL CONTROL</u>
BADL	37.53		28.5	--	4,723.6	800	C. THISTLE
DETO	79.2		--	--	197.40	1,350,000	L. SPURGE
FOLA	1.72		14.51	2.44	773.44		
FOUS	17.5				29.60		
JECA	.822		0.873	0.15	107.00	320,000	L. SPURGE
KNRI	141.2		--	--	264.00		
MORU	13.1	8.75	1.073	--	250.10		
NIOB	--		318.33	--	318.33		
SCBL	4.03		19.7	0.1	307.66		
TRNP	438.53		110.79	--	1,837.30	2,320,992	L. SPURGE
WICA	0.703	.41	19.41	--	5,513.00		
<i>TOTAL</i>	734.335	9.25	513.186	2.69	14,321.43		

BADLANDS NATIONAL PARK

EXOTIC PLANT MAPPING (INVENTORY)

CANADA THISTLE (CIRSIIUM ARVENSE)

POINTS (4)	=	.013 ACRES
POLYS (25)	=	28.5 ACRES
TOTAL	=	28.5 ACRES

MANUAL CONTROL

COMMON MULLEIN (VERBASCUM THAPSUS)

POINTS (5)	=	.006 ACRES
POLY (14)	=	16.23 ACRES
TOTAL	=	16.29 ACRES

CHEMICAL CONTROL

CANADA THISTLE (CIRSIIUM ARVENSE)

POINTS (14)	=	.01 ACRES
POLY (38)	=	13.78 ACRES
TOTAL	=	13.79 ACRES

FIELD BINDWEED (CONVOLVULUS ARVENSIS)

POINT (1)	=	<.01 ACRES
POLY (1)	=	1.09 ACRES
TOTAL	=	1.09 ACRES

RUSSIAN KNAPWEED (ACROPTILON REPENS)

POLY (7)	=	5.58 ACRES
TOTAL	=	5.58 ACRES

SMOOTH BROME (BROMUS INERMIS)

POLY (1)	=	.78 ACRES
TOTAL	=	.78 ACRES

BIOLOGICAL CONTROL

CANADA THISTLE (CIRSIIUM ARVENSE)

POINT (2)	=	UROPHORA CARDUI (200/SITE)
POINT (2)	=	CEUTORHYNCHUS LITURA (200/SITE)

AREA COVERED

4723.6 ACRES

DEVILS TOWER EPMT 2002 PROJECT - FINAL DATA SUMMARY

Prepared by THRO GIS Lab 10/3/2002

Polygon Data - 32 polygons sprayed from September 03-06, 2002 - Total acreage = 79.2

Species	<u>Herbicide Used</u>	<u>Gallons Used</u>	<u>Spray</u> <u>Time (hrs)</u>	<u>Total</u> <u>sprayed</u> <u>(acres)</u>	<u>Density</u> <u>Heavy</u> <u>(acres)</u>	<u>Density</u> <u>Moderate</u> <u>(acres)</u>	<u>Density</u> <u>Light</u> <u>(acres)</u>	<u>Density</u> <u>Trace</u> <u>(acres)</u>
Leafy Spurge	Plateau	6.2	136.6	79.2	48.3	11.6	17.6	1.8
					<u>Distribution</u> <u>Continous</u> <u>(acres)</u>	<u>Distribution</u> <u>Clumped</u> <u>(acres)</u>	<u>Distribution</u> <u>Scattered</u> <u>(acres)</u>	<u>Distribution</u> <u>Isolated Patch</u> <u>(acres)</u>
					48.2	0.11	20.8	

Area covered 197.4 acres

Required Data by WASO

- Acres Inventoried
- Gross Infested Acres
- Treated Acres
- Retreated Acres
- Monitored Acres
- Restored Acres
- Eradicated Species
- Lost-time Due to Injuries
- Total Person Hours

ACCOUNTABILITY!

Liaison Position

- Manage the program and budget, develop annual work plans, and report to WASO as directed
- Work with agencies and non-federal partners to enhance control efforts and to meet annual goals
 - Working with MT Conservation Corp.
 - MidDakota Vegetation Management (Mgmt. Areas)
- Assist with exotic plant management plans, PMIS proposals (NIOB & TRNP)
- Provide technical advice as it relates to exotic plants

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- Assist parks with planning and compliance (NEPA & Sec. 106) as it relates to exotic plants
 - Provide reports on accomplishments of the EPMT
 - Assisting with planning the EPMT annual meeting in May 2003
 - Assisting with developing a National EPMT poster & display (Weed Awareness Week)
 - 2 presentations at the Society for Range Management meeting
 - Highlight in Park Science
 - EPMT handbook (biological control section)

Research Activities

- Herbicide effects on plants species diversity and biomass
- Effects of burning and herbicide treatment for Canada thistle control
- Herbicide application, burning and reseeding to enhance/establish native plant communities
- Prescribed burning after control of leafy spurge biological control agents to enhance native species
- Completing nutritional composition studies on Canada thistle, leafy spurge, spotted and Russian knapweed

Equipment

- Camera
- Laptop computer
- Truck sprayer
- Backpacks
- ATV's equipped with boominators
- Geo Explorer III with beacon on belt
- Equipment sharing











Costs

ATV/Truck/Saddlelight

Avg. \$154.22/ac

Range \$88.97-\$235.27

Handpulling

Avg. \$903.34

Range \$56.24-6,359.72

\$358

Helicopter

\$50/ac







Aphthona nigriscutis



Aphthona lacertosa

Aphthona lacertosa on plant

The team collected
~ 5 million in 2002

.11/insect = \$550,000













*Back Hill
(highest viewpoint in park)*

1993 - 148 acres

Paddock Creek

5,127 acres

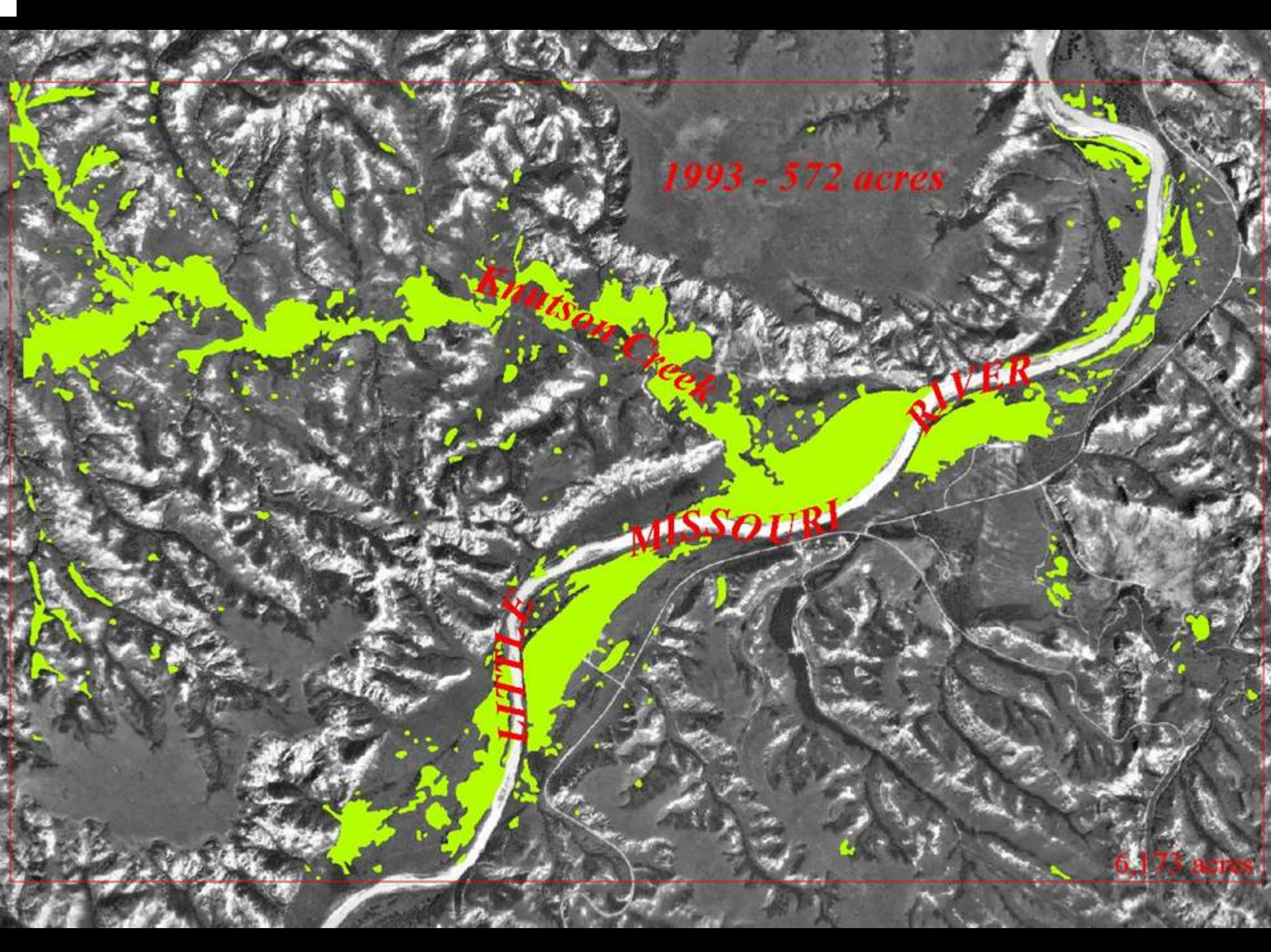


*Buck Hill
(highest viewpoint in park)*

2001- 88 acres

Paddock Creek

5,127 acres



1993 - 572 acres

Knutson Creek

RIVER

MISSOURI

Little

6,173 acres

2001- 29 acres

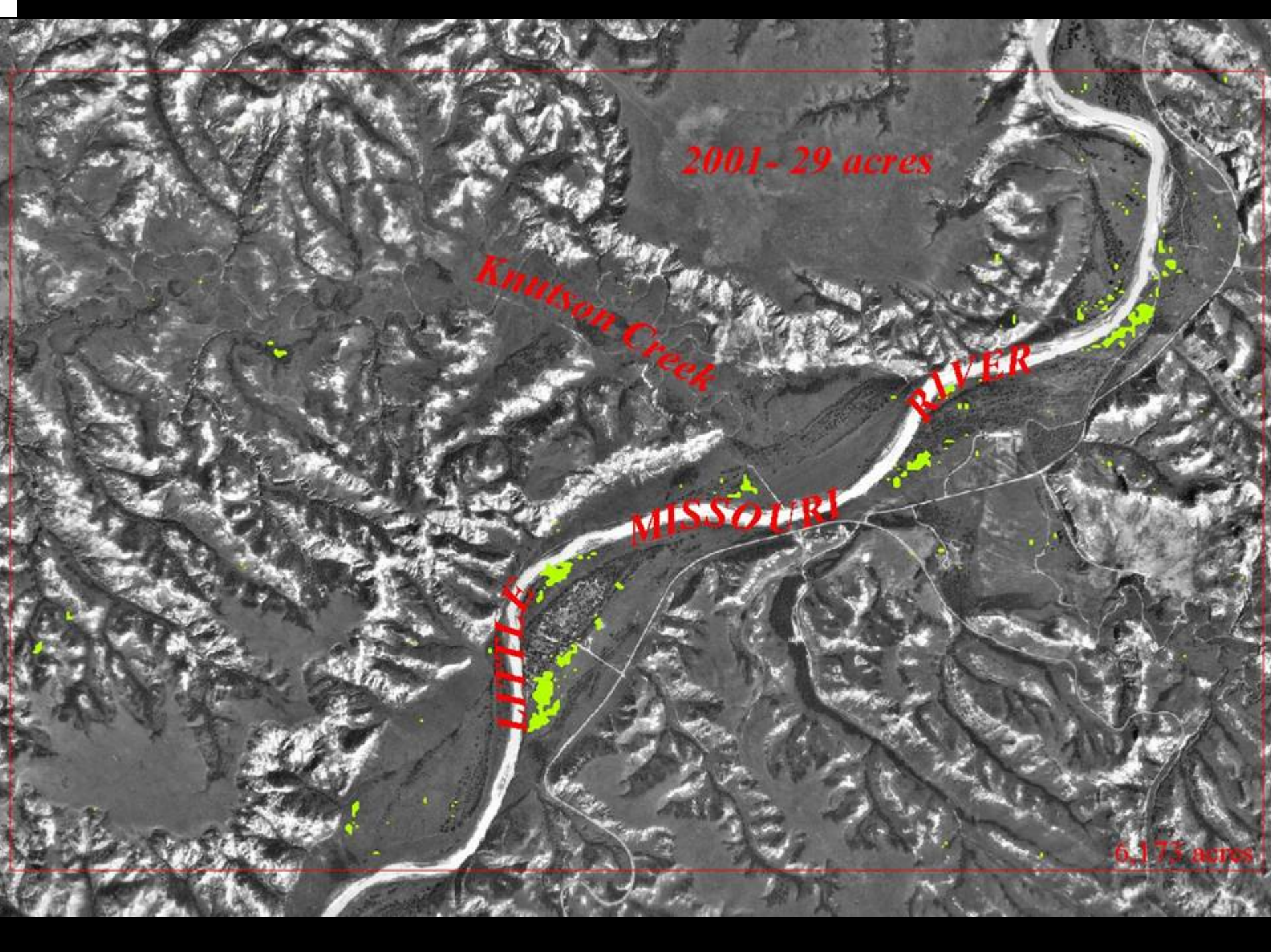
Knutson Creek

RIVER

MISSOURI

LITTLE

6,173 acres







Week of May 19th
Training at WICA & BADL

May 27th
Travel to DETO

May 28th
Training by Bill Walker (UAP Rep)

- Noxious weed law
- Herbicides
 - mode of action
 - efficacy, toxicity
 - labels and MSDS
- PPE and safety equipment
- Respirator use and clearance (OSHA)
- Equipment and calibration
- Backpack, ATV, Truck Mount

May 29th
Treatment at DETO (Houndstongue)
Oversight by Jim Cheatham & Bill Walker

May 30th
Travel

Annual Planning

■ Name of Park

- Contact Person
- Phone, Fax, Email

■ Rank

■ Project Area

- Management Zone
- Acres

■ Habitat Description

- Include any T&E species/habitat information if any

■ What herbicides are currently allowed to be sprayed at your park

■ Exotic species present

- Control method
 - Manual
 - Herbicide
 - Backpack, ATV, Truck
 - Name and projected used of gallons
 - Biological Control
 - How many
- Level of infestation
- Arrival dates, anticipated length of time to complete project based on a 3 person crew



Any Questions/Thoughts/Ideas

